

What is claimed is:

- 1 1. A vehicle diagnostic system comprising:
2 a diagnostic instrument having an external data port; and
3 a wireless adapter coupled to the external data port and configured to send vehicle
4 diagnostic information wirelessly to a computing device.
- 1 2. The system of claim 1, wherein the wireless adapter communicates with the
2 computing device by selectively using one of at least two data communications protocols.
- 1 3. The system of claim 1, wherein the wireless adapter is further configured to
2 receive a control command from the computing device.
- 1 4. The system of claim 1, wherein the diagnostic instrument is further configured to
2 generate a plurality of wireless data streams, the plurality of wireless data streams
3 including vehicle diagnostic information.
- 1 5. The system of claim 1, wherein the wireless adapter is further configured to
2 receive a time base synchronization command from the computing device.
- 1 6. A method for wireless communication of vehicle diagnostic information using a
2 diagnostic instrument including a wireless adapter, the method comprising steps of:
3 assembling a series of control commands;
4 sending, by a computing device, a first of the series of control commands to the
5 wireless adapter; and
6 receiving, from the wireless adapter, an acknowledgement of the first control
7 command.
- 1 7. The method of claim 6, further comprising:

2 sending, by the computing device, a second of the series of control commands
3 responsive to the receiving step.

1 8. The method of claim 6, further comprising:
2 receiving, by a plurality of computing devices, the vehicle diagnostic information
3 sent by the wireless adapter.

1 9. The method of claim 8, wherein the receiving step further comprises:
2 listening for the vehicle diagnostic information before sending, to the diagnostic
3 instrument, a request command for the vehicle diagnostic information.

1 10. The method of claim 8, further comprising:
2 relaying, by the diagnostic instrument, data from one of the plurality of computing
3 devices to another of the plurality of computing devices.

1 11. The method of claim 6, further comprising:
2 displaying a warning on a display screen of the computing device before sending
3 a control command to the diagnostic instrument.

1 12. The method of claim 6, further comprising:
2 sending vehicle diagnostic instrument status information the computing device.

1 13. The method of claim 12, further comprising:
2 displaying a warning on a display screen responsive to the status information.

1 14. A method for wireless communication of vehicle diagnostic information, the
2 method comprising steps of:
3 generating, by at least one vehicle diagnostic instrument, a plurality of wireless
4 data streams, the plurality of wireless data streams including vehicle
5 diagnostic information; and

6 receiving, by at least one computing device, the plurality of wireless data streams.

1 15. The method of claim 14, further comprising:

2 placing the at least one computing device in a master mode; and

3 sending a command to the at least one vehicle diagnostic instrument responsive to
4 the placing step.

1 16. The method of claim 14, further comprising:

2 parsing, by the at least one computing device, the plurality of wireless data

3 streams to produce a data segment; and

4 assigning an identifier to the data segment.

1 17. A vehicle diagnostic instrument comprising:

2 a connection network configured to provide a communications path;

3 a data acquisition unit coupled to the connection network and configured to
4 receive diagnostic information;

5 a processor coupled to the connection network and configured to process the
6 diagnostic information;

7 a communications interface coupled to the connection network, the

8 communications interface having an external data port; and

9 a wireless adapter coupled to the external data port and configured to send the
10 diagnostic information wirelessly to a computing device.

1 18. The diagnostic instrument of claim 17, wherein the wireless adapter

2 communicates with the computing device by selectively using one of at least two data

3 communications protocols.

- 1 19. The diagnostic instrument of claim 17, wherein the communications interface
2 provides a bidirectional serial protocol for the external data port and interfaces the
3 bidirectional serial protocol to the connection network.
- 1 20. The diagnostic instrument of claim 17, wherein the wireless adapter is further
2 configured to receive a control command from the computing device and to send the
3 control command to the processor.
- 1 21. The diagnostic instrument of claim 20, wherein the processor is further configured
2 to enable data capture by the data acquisition unit responsive to a start control command.
- 1 22. The diagnostic instrument of claim 20, wherein the processor is further configured
2 to disable data capture by the data acquisition unit responsive to a stop control command.
- 1 23. The diagnostic instrument of claim 20, wherein the control command
2 synchronizes the time base of the computing device and the vehicle diagnostic
3 instrument.
- 1 24. An apparatus for operating a plurality of diagnostic instruments, the apparatus
2 comprising:
3 a user interface module configured to enable a user to select at least one of the
4 plurality of diagnostic instruments;
5 an instrument interface module configured to send a control command to the
6 selected diagnostic instrument; and
7 an instrument status module configured to monitor status information from the
8 selected diagnostic instrument.
- 1 25. The apparatus of claim 24, further comprising:

2 a data analysis module configured to assign an identifier to diagnostic information
3 received from the selected diagnostic instrument.

1 26. A user interface for a computing device to control a plurality of diagnostic
2 instruments, the user interface comprising:
3 an instrument selection element configured to list available ones of the plurality of
4 diagnostic instruments; and
5 an active selection element corresponding to the instrument selection element and
6 configured to select for use, by the computing device, the data from the
7 corresponding diagnostic instrument.

1 27. The user interface of claim 26, further comprising:
2 a broadcast mode selection element corresponding to the instrument selection
3 element and configured to invoke broadcast mode on the corresponding
4 diagnostic instrument.

1 28. The user interface of claim 26, further comprising:
2 a master mode selection element corresponding to the instrument selection
3 element and configured to invoke master mode on the corresponding
4 diagnostic instrument.